ABSTRACT

A communications system for servicing customers with broadband services using equipment deployed in the region near the network edge, that is, is close to or at the customer. The communications system communicates between points of presence and customer premises using a plurality of ATM nodes connected to the customer premises and to the points of presence. A plurality of transports connect the ATM nodes in an ATM network. The ATM network is controlled to route data among the ATM nodes. The ATM network preferable has a mesh architecture that adds backhaul redundancy and bandwith. Remote digital subscriber line access multiplexer (R-DSLAMs) connect to the established access points for customer premises in parallel with the established backhaul transport and/or the R-DSLAMs connect to a different remote office or other locations in communications networks.